

GILA RIVER BASIN

09504000 VERDE RIVER NEAR CLARKDALE, AZ

LOCATION.--Lat 34° 51' 08", long 112° 03' 55", in SE1/4NW1/4SE1/4 sec. 17, T.17 N., R.3 E., Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on left bank 1.7 mi downstream from Sycamore Creek and 5.6 mi north of Clarkdale.

DRAINAGE AREA.--3,503 mi², of which 364 mi² is noncontributing including 357 mi² in Aubrey Valley Playa, a closed basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to Oct. 1916, May 1917 to July 1921, Apr. 1965 to current year.

REVISED RECORDS.--WSP 1213: 1917, 1920. WDR AZ--89--1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above sea level, from topographic map. June 1915 to June 1921, at site 2.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,200 ft³/s Feb. 20, 1993, gage height, 26.39 ft, from rating curve extended above 20,000 ft³/s on basis of slope-area measurement at 53,200 ft³/s; minimum daily, 55 ft³/s Aug. 31 and Sept. 1, 1920.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 6	2215	*1,360	*3.17

Minimum daily discharge, 65 ft³/s on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	76	76	75	80	79	77	71	68	65	66	67
2	70	76	76	75	80	79	76	72	68	65	68	67
3	70	76	75	76	81	79	76	72	68	66	69	67
4	70	77	77	75	80	80	75	71	69	67	69	67
5	70	79	76	75	81	80	73	71	68	67	68	68
6	241	79	75	75	80	80	75	71	68	66	68	70
7	277	78	74	75	80	80	75	71	67	66	68	175
8	99	77	73	76	80	80	73	71	67	66	67	135
9	81	77	73	77	80	79	72	70	66	65	66	125
10	77	77	74	76	80	80	72	70	66	67	66	102
11	75	78	73	76	80	80	71	70	66	67	66	466
12	77	78	73	76	80	79	72	70	67	67	66	198
13	76	78	72	76	80	79	71	70	66	67	66	102
14	76	78	72	77	80	79	71	70	66	67	66	79
15	75	78	73	77	80	79	72	70	66	68	67	74
16	75	78	72	78	80	80	72	70	66	74	67	72
17	75	78	72	77	80	80	71	69	66	70	67	71
18	75	78	72	77	80	80	71	69	66	69	66	70
19	75	78	72	77	80	79	71	69	66	68	66	69
20	75	78	72	78	80	79	71	69	66	68	76	69
21	75	78	73	78	79	79	71	69	66	67	71	69
22	76	78	73	78	79	79	72	70	66	66	67	68
23	75	78	73	79	80	79	72	70	66	66	67	69
24	75	77	73	78	80	79	72	70	66	67	67	68
25	75	78	73	78	79	79	72	70	65	70	67	68
26	75	77	73	79	79	79	71	70	65	67	67	68
27	75	77	74	79	79	79	72	70	65	66	66	69
28	75	76	74	80	79	79	72	70	65	66	67	69
29	76	77	75	80	---	81	71	69	65	65	67	69
30	76	77	76	80	---	80	71	69	65	65	67	69
31	76	---	76	79	---	78	---	68	---	66	67	---
TOTAL	2708	2325	2285	2392	2236	2461	2173	2171	1990	2076	2088	2899
MEAN	87.35	77.50	73.71	77.16	79.86	79.39	72.43	70.03	66.33	66.97	67.35	96.63
MAX	277	79	77	80	81	81	77	72	69	74	76	466
MIN	70	76	72	75	79	78	71	68	65	65	66	67
AC-FT	5370	4610	4530	4740	4440	4880	4310	4310	3950	4120	4140	5750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2002, BY WATER YEAR (WY)

MEAN	115.8	122.8	184.9	199.1	443.2	458.8	196.1	87.24	76.57	101.2	100.7	104.7
MAX	1080	736	1032	2800	3485	2763	1520	355	90.5	670	201	670
(WY)	1973	1920	1966	1993	1980	1978	1973	1973	1987	1919	1919	1983
MIN	67.9	69.6	73.7	73.4	73.8	73.2	68.6	68.5	61.6	64.1	67.4	66.3
(WY)	1979	1967	2002	1967	1972	1972	1968	1966	1974	1978	2002	1920

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1915 - 2002	
ANNUAL TOTAL	32804		27804			
ANNUAL MEAN	89.87		76.18		179.4	
HIGHEST ANNUAL MEAN					645	
LOWEST ANNUAL MEAN					76.2	
HIGHEST DAILY MEAN	1040	Mar 14	466	Sep 11	30000	Feb 20 1993
LOWEST DAILY MEAN	67	May 31	65	Jun 25	55	Aug 31 1920
ANNUAL SEVEN-DAY MINIMUM	67	Jun 6	65	Jun 25	59	Jun 27 1974
MAXIMUM PEAK FLOW					50600	
MAXIMUM PEAK STAGE					19.10	
ANNUAL RUNOFF (AC-FT)	65070		55150		129900	
10 PERCENT EXCEEDS	87		80		187	
50 PERCENT EXCEEDS	75		73		82	
90 PERCENT EXCEEDS	69		66		72	

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Mar. 1976 to Oct. 1979, Jan. 1980 to Aug. 1983 and Oct. 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC 17...	1245	9	72	1.9	680	11.6	113	8.0	508p	18.0	9.0	240	53.0
FEB 26...	1140	9	79	2.1	682	10.8	113	8.3	502	21.3	12.1	210	48.0
APR 22...	1100	9	72	2.3	675	9.5	108	8.2	497	27.5	15.8	230	51.0
JUN 04...	1025	9	70	2.8	670	9.1	113	8.2	503	27.0	19.2	220	52.0
04...	1035	7	70	5.9	670	9.1	113	8.2	502	27.0	19.2	220	52.0
AUG 26...	1455	9	66	3.6	672	10.9	146	8.3	494	35.4	23.3	210	48.0
Date	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
DEC 17...	55.0	25.0	24.0	2.00	.7	25.0	266p	321	2	13.0	.2	8.50	3
FEB 26...	50.0	23.0	24.0	1.80	.7	25.0	261	311	3	13.0	.2	8.10	7
APR 22...	52.0	24.0	24.0	1.90	.7	24.0	258	310	3	13.0	.2	7.70	6
JUN 04...	52.0	23.0	24.0	2.00	.7	23.0	266	318	3	12.0	.2	7.50	6
04...	52.0	23.0	24.0	1.90	.7	23.0	255	305	3	12.0	.2	7.50	6
AUG 26...	49.0	23.0	24.0	2.00	.7	22.0	239	284	4	12.0	.2	6.80	2
Date	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (00340)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)
DEC 17...	.33	239	287	<.20	.02	.03	.150	<.02	<5	E3k	E2k	<1	<1
FEB 26...	.38	279	276	<.20	.02	.03	.060	.04	6	E4k	E5k	<1	<1
APR 22...	.39	290	277	<.20	<.01	--	.040	.12	<5	E9k	E9k	<1	<1
JUN 04...	.39	285	279	<.20	E.02	--	E.040	<.02	<5	E14k	E6k	<1	<1
04...	.39	288	273	<.20	E.02	--	E.040	<.02	<5	--	--	<1	<1
AUG 26...	.35	259	257	<.20	<.01	--	.020	<.02	<5	E5k	--	<1	<1

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, DIS- SOLVED (UG/L AS B) (01020)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 17...	17	17	180	190	<1	<1	157	157	<.5	<.5	<1	1	<2
FEB 26...	18	21	170	180	<1	<1	160	164	<.5	<.5	<1	<1	<2
APR 22...	16	16	180	190	<1	<1	163	167	<.5	<.5	<1	<1	<2
JUN 04...	16	15	200	200	<1	<1	163	161	<.5	<.5	<1	<1	<2
JUN 04...	17	17	200	200	<1	<1	163	161	<.5	<.5	<1	1	<2
AUG 26...	18	19	190	200	<1	<1	156	158	<.5	<.5	<1	<1	<2

Date	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)
DEC 17...	<2	4	130	<2	<2	5	7	<.10	<.1	<1	<1	<1	<1
FEB 26...	<2	5	93	<2	<2	6	9	<.10	<.1	<1	<1	<1	<1
APR 22...	<2	4	128	<2	<2	7	11	<.10	<.1	<1	<1	<1	<1
JUN 04...	<2	4	141	<2	<2	6	10	<.10	<.1	<1	<1	<1	<1
JUN 04...	<2	3	143	<2	<2	6	10	<.10	<.1	<1	<1	<1	<1
AUG 26...	<2	4	89	<2	<2	6	8	<.10	<.1	<1	<1	<1	<1

Date	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR) (01082)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)	THAL- LIUM, TOTAL RECOV- ERABLE (UG/L AS TL) (01059)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	SEDI- MENT, DIS- SOLVED (MG/L SUS- PENDE) (80154)	SEDI- MENT, DIS- SOLVED (MG/L SUS- PENDE) (80155)
DEC 17...	<1	<1	210	<2	<2	3	<2	30	5.8
FEB 26...	<1	<1	190	<2	<2	<2	3	8.0	1.7
APR 22...	<1	<1	190	<2	<2	4	<2	33	6.4
JUN 04...	<1	<1	190	<2	<2	3	3	18	3.4
JUN 04...	<1	<1	190	<2	<2	3	3	--	--
AUG 26...	<1	<1	180	<2	<2	<2	<2	18	3.2

Remark codes used in this report:

< -- Less than

E -- Estimated value

Value qualifier codes used in this report:

k -- Counts outside acceptable range

p -- Value reported is preferred

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Water-quality measurements in the following table were made as part of the ADEQ Fixed-Station Network Program. The following analyses are quality-assurance samples processed during the 2002 sampling period and are defined in the introductory text section titled "Water-Quality Control Data".

Date	Time	Sample type	CALCIUM	MAGNE- SIUM,	SODIUM,	NITRO- GEN,AM- MONIA +	NITRO- GEN,	NITRO- GEN,	PHOS-	ALUM- INUM,	BARIUM,	BERYL- LIUM,	CADMIUM
			DIS-	DIS-	DIS-	ORGANIC	AMMONIA	NO2+NO3	PHORUS	DIS-	DIS-	DIS-	DIS-
			SOLVED (MG/L AS CA (00915)	SOLVED (MG/L AS MG (00925)	SOLVED (MG/L AS NA (00930)	TOTAL (MG/L AS N (00625)	TOTAL (MG/L AS N (00610)	TOTAL (MG/L AS N (00630)	TOTAL (MG/L AS P (00665)	SOLVED (UG/L AS AL (01106)	SOLVED (UG/L AS BA (01005)	SOLVED (UG/L AS BE (01010)	SOLVED (UG/L AS CD (01025)
APR 22...	1110	2	<.02	<.03	<.1	<.20	<.01	<.020	<.02	<3	<.5	<1	<.5

Date	CHRO- MIUM,	COPPER,	IRON,	LEAD,	MANGA- NESE,	NICKEL,	ZINC,
	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-
	SOLVED (UG/L AS CR (01030)	SOLVED (UG/L AS CU (01040)	SOLVED (UG/L AS FE (01046)	SOLVED (UG/L AS PB (01049)	SOLVED (UG/L AS MN (01056)	SOLVED (UG/L AS NI (01065)	SOLVED (UG/L AS ZN (01090)
APR 22...	<1	<2	<2	<2	<1	<1	<2

Remark codes used in this report:
< -- Less than